Minutes from the July 31, 2003 Meeting of the Linear Collider Subcommittee of the Fermilab Long Range Planning Group

Present: M. Carena, J. Butler, D. Finley, E. Fisk, S. Holmes, Y-K. Kim, A. Kronfeld, H. Montgomery, R. Patterson, S. Tkaczyk

Absent: R. Kephart, S. Nagaitsev

Guests: D. Amidei, G. Blazey, G. Gollin, J. Jackson, K-J. Kim, C. White

Discussions of Outreach Activities and Strategies

Judy Jackson, head of the Public Affairs Dept at Fermilab, described various initiatives underway and led a discussion on where we should be headed.

interactions.org

Judy described a new website created by the public affairs directors of the world HEP laboratories as a resouce for the HEP community. The site, http://interactions.org, will be formally launched during the Lepton-Photon conference next week. The site includes daily news as well as resources in the form of photos, articles, results, talks, etc. Note that this site is not set up for educating the public.

Judy suggest that adding a section devoted to "Future" might be an appropriate vehicle for disseminating information on linear collider to the community. Andreas noted that Norman Graf has secured the URL "linearcollider.org" for such a purpose. That site currently contains links to the three regional efforts. Judy noted that one of the advantages of interactions.org is that it is service by a full-time webmaster who is updating it daily. (Suggestion to Judy: I visited the site. It has a huge amount of information and a search facility could make it easier to find things.)

Judy noted that the laboratory public relations directors have established regularly scheduled discussions and will be meeting together next week during lepton-photon.

Communicating with Government and the broader Scientific Community

Niel Calder (PR director at SLAC) gave a presentation at the Cornell workshop on communication. Context was how to get the point across to a Congressman during 60 sec. in an elevator. Judy said it will be posted on interactions.org (but I couldn't find it there yet).

Judy said that there now exists an audience in the executive branch in Washington who are listening on the linear collider. DOE, NSF, and OSTP have met, or are meeting, with European counterparts to explore possibilities for how an international collaboration on LC might work.

The "Quarks to Cosmos" approach (see Connecting Quarks to the Cosmos, National Academies of Science/Board on Physics and Astronomy study) is playing well with these folks. However, there are many hurdles before LC will become real. Pat Looney (OSTP) gave a recent presentation on OSTP planning that contains an interesting slide entitled "Connecting the Quarks to the Cash: 11 Science Policy Questions for a New Facility":

1. What are the driving scientific questions for the field?
2. How do these questions fit into the larger picture of science?
3. How will this investment address the driving questions?
4. Is this a priority?
5. Do you have consensus within the field?
6. How will this impact the rest of the field? (+ and –) (including $$)
7. Is the planning realistic ($, time, available technology, management, etc)
8. What is the international context? Is it redundant? Do you have international participation?
9. Is anyone outside of the field waiting for the results? (Will they voice their opinion and support?)
10. Can you demonstrate coordination with other programs?
11. How has/is the program managing and performing with the current funds?

This appears to represent a roadmap for establishing executive branch support for a big, international, scientific project (like LC). Judy emphasized the importance of item 9. The entire talk can be found on interactions.org.

George: Outreach to broader scientific community seems critical.

Jerry: Says he has been invited to organize an educational effort on LC in Congress (under auspices of Illinois Coalition).

Judy: Suggest coordination with April Burke.

Bottom Line: It is important that all players communicate and coordinate what they are doing.

<u>Communicating with our neighbors</u>
A public opinion survey was conducted for Fermilab in 2001 by the Public Opinion Laboratory at NIU.

The good news: People who have some knowledge of Fermilab were supportive of our presence and an extended future (even it involved extension off-site).

The bad news: More than half of our neighbors don't know anything about us.

Outreach activities
- Arts Series
- Education Center
- Ask a Scientist (severely inhibited after 9/11)

Joint Fermilab/Community Task Force (just starting up)
- Funded through ICAR
- Advisory to the lab
- ~20 people, including 2 from Fermilab
  - Makeup to include community leaders, activists (includes critics, like CATCH)

Outside facilitor

Charge is how to interact with neighbors on specific issues (limited duration)

First two issues for consideration are:

- A (north-south) road through the site
- Future extension of the lab beyond the current site.

Status

- Contract with NIU Office of Intergovernmental Affairs to organize
- Currently interviewing prospective members.
- Shooting for early October startup (with finite duration, ~6 months)

Kwang-Je: What about ANL representation? Fermilab/ANL should learn from SLAC/LBNL.

Judy: It's more important that Witherell and Grunder first learn to communicate frequently.

Discussion of Institutional Alliances

Chris described a little of the history and future of ICAR (Illinois Consortium for Accelerator Research).

- Supported by Illinois at $2.5M/year, nominally for 5 years
  - Entering year 4.
  - Initiated under Ryan
  - Survived the new Blagoivich (spelling?) budget because of connection to Fermilab future.
  - See leveraging state $ to federal $
  - Funding goes directly to universities for the purpose of complementing the lab's accelerator R&D activities aimed at the future.
- ICAR can/does connect with politicians.
- The concentration of ICAR on the muon collider/neutrino factory has been a choice of the individuals involved, not a mandated policy of ICAR.
- ⇨ Linear collider is a very natural evolution. Need a strategic plan for ICAR. Cooperation of the labs is a key.

Steve: Is level of communication with the lab adequate?

Chris: Yes, but could benefit from some enhancement. For example, IIT is interested in bringing engineering departments into this.

Jerry then talked about NICADD (Northern Illinois Center for Accelerator and Detector Development).

- Funded through the Department of Education
- Proposing to contribute to the site study associated with the "western north-south" site.
  - NIU Geology Department
  - Hydrogeological study
  - Vibrational analysis study

- Full time outreach coordinator on board.
  Visits local schools (~100 so far)
  HEP focus

Judy: Would have liked to know about this earlier.

Andreas: Sound like northern Illinois needs a steering committee.

University involvement in LC accelerator R&D
Jerry: NIU has been unable to initiate an R&D project on linear collider. Attributes to lack of critical mass in the Fermilab LC R&D effort.

Dan: E166 at SLAC (polarized e+ production) is a perfect example of a university/lab collaboration. Need to identify something similar here (damping ring?). Timescales are not inconsistent with current Run II emphasis.

Bid to Host (Northern Illinois component)
Steve: Under whose auspices should this be?
Fermilab?
Fermilab and ANL?
Fermilab/ANL/ICAR/NICADD?
All of the above plus mid-western universities?

Kwang-Je: All of the above. Need to strengthen Fermilab/ANL ties.

Joel: Fermilab and ANL need to take the lead, including coordination.

George: Site proposals should be via the USLCSG

Steve: Yes. We are talking about getting the best possible Northern Illinois component within the U.S. bid to host (as it will be prepared by the USLCSG).

Joel: Fermilab and ANL still have to provide leadership and coordination!

Steve: Is there a role for the local universities?

Dan; Yes.

Jerry: But this isn't happening.

Steve: We will have an entire meeting on this in a few weeks.

Summary
As notes editor here is my attempt to make it sound like we had a coherent discussion. I believe the major point were:

- It is important that all players communicate and coordinate what they are doing.

- Perhaps northern Illinois needs a steering committee. (Refer to upcoming bid to host and organization discussions.)

- Any effort to move LC accelerator R&D into the local universities requires a greater level of activity within Fermilab.

- We should think about modest scale experiments that can be undertaken as a laboratory/university collaboration. Initiatives on linac or damping ring demonstration projects might be candidates.

- Fermilab and Argonne should be taking the lead on coordinating the northern Illinois effort. Strengthening of Fermilab/ANL ties and communications are a pre-requisite.

Next Meeting

August 28, 10:30-Noon, on the 7th floor cross-over.

Agenda:

1. Physics opportunities (Marcela)
2. Review of ongoing work plan (Steve)